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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,274	10/05/2004	Pierre Roux	218728-000236	1567

28465 7590 12/12/2007

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EXAMINER	
THIER, MICHAEL	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
12/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/510,274	ROUX ET AL.	
	Examiner	Art Unit	
	Michael T. Thier	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,16,17,20,22,24-33,35 and 38-46* is/are rejected.

7)☒ Claim(s) *15,18,19,21,23,34,36 and 37* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 October 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 3/23/2005 has been entered and considered by the examiner.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 25, 38, 44 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 23, 44, and 54 of copending Application No. 10/483119 in view of Park et al. (US 2003/0013476).

Co-Pending Application (10/483119) Claim 1	Instant Application (10/510274) Claim 1
Preamble: A method of controlling radio resources assigned to a communication between a mobile terminal and a cellular radio network infrastructure with spread spectrum, the infrastructure comprising at least one radio network controller and fixed transceivers serving respective cells, the method comprising the following steps:	Preamble: A method of controlling radio resources assigned to a communication between a mobile terminal and a cellular network infrastructure, the infrastructure comprising at least one radio network controller and fixed transceivers serving respective cells, the method comprising the steps of:

Measurement step: Measurement of respective propagation channel parameters between the mobile terminal and several fixed transceivers, the measurements comprising the determination, for each fixed transceiver, of a propagation profile including at least one propagation path associated with a respective reception energy;	Measurement step: Measuring parameters of respective propagation channels between the mobile terminal and a number of fixed transceivers;
Transmitting step: Transmission to the radio network controller of report messages indicating at least a part of the measured parameters;	Transmitting step: Transmitting to the radio network controller report messages indicating at least some of the measured parameters;
Processing Step: Processing of the report messages at the radio network controller, wherein the parameters indicated in the report messages for at least one fixed transceiver comprise data dependent on the energy distribution in the propagation profile,	Processing Step: Processing the report messages on the radio network controller, wherein the measured parameters indicated in the report messages for at least one fixed transceiver include data representing a time variability of a power level received

taken into account by the radio network controller in said processing.	on the channel between the mobile terminal and said fixed transceiver.

However, co-pending application #10/483119 teaches the measured parameters including data dependent on the energy distribution in the propagation profile and do not teach the data representing a time variability of a power level received on the channel between the mobile and fixed transceiver.

Park teaches a method and system for forward link power control in a mobile communication system (title and abstract). He teaches the idea of measuring parameters such as data representing a time variability of a power level in the abstract and par. 15. See where it is explained that the mobile station measures power of the traffic signal received for a power control group duration, which is at least twice the antenna switching time of the base station device. The mobile then averages the measured value to generate power control information to send to the base station. Therefore, the mobile device is measuring the power over a given time duration, and sending the averaged information to the base station, thus reading on a time variability of a power level received.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Park with the teachings as in the instant application. The motivation for doing so would have been to allow for forward link power control in a system supporting transmission diversity. (Park par. 3).

This is a provisional obviousness-type double patenting rejection. (claims 2-24, 26-37, 39-43, and 45-46 depend from claims 1, 25, 38, and 44 and are therefore rejected for the same reasons)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4, 6-8, 11, 13-14, 25-26, 28-30, 32-33, 38, 40-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiedemann (WO 99/13675) in view of Park et al. (US 2003/0013476).

Regarding claims 1, 25, 38, and 44. Tiedemann teaches a system and method of controlling radio resources assigned to a communication between a mobile terminal (figure 1 item 18) and a cellular radio network infrastructure with spread spectrum (see the abstract), the infrastructure comprising at least one radio network controller (see figure 1 item 10, "system controller") and fixed transceivers serving respective cells (figure 1 items 12, 14, and 16), the method comprising the following steps:

measuring parameters of respective propagation channels between the mobile terminal and a number of fixed transceivers (see page 27 lines 10-30, specifically where he mentions the system measures the pilot strengths for the base stations in the mobile stations active set, then the system compares the direct and multi path signals to a

determined threshold (generated by the mobile based on the pilot strengths), to determine which signal is greater then the threshold.)

transmitting to the radio network controller report messages indicating at least a part of the measured parameters (see page 27 lines 32-38 where the mobile sends a bit-vector to the base station, if the signal is greater then the threshold the mobile formats this bit-vector message indicating whether the direct or multi path signal is greater and this bit-vector is relayed to the system controller (i.e. network controller) so the controller is informed of the assignment used at the mobile and can adjust the channel power allocation accordingly. This clearly reads on "report messages indicating at least part of the measured parameters to the radio network controller"); and

processing the report messages at the radio network controller, wherein the parameters indicated in the report messages for at least one fixed transceiver comprise data dependent on the energy distribution in the propagation profile, taken into account by the radio network controller in said processing. (see page 27 lines 32 through page 8 line 13, specifically where he explains the controller adjusts the traffic channel power allocation based on the received bit-vector message, where the bit-vector message has been generated by the mobile station to indicate whether the direct or multi path signal is greater then the set threshold for the base station) Claims 25, 38, and 44 recite the separate components of the system that complete this method (i.e. radio network controller, mobile terminal, and base station [fixed transceiver]), and are therefore rejected for the same reasons.

However, he does not specifically disclose that the measured parameters include data representing a time variability of a power level received.

Park teaches a method and system for forward link power control in a mobile communication system (title and abstract). He teaches the idea of measuring parameters such as data representing a time variability of a power level in the abstract and par. 15. See where it is explained that the mobile station measures power of the traffic signal received for a power control group duration, which is at least twice the antenna switching time of the base station device. The mobile then averages the measured value to generate power control information to send to the base station. Therefore, the mobile device is measuring the power over a given time duration, and sending the averaged information to the base station, thus reading on a time variability of a power level received.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Park with the teachings as in the instant application. The motivation for doing so would have been to allow for forward link power control in a system supporting transmission diversity. (Park par. 3).

Regarding claims 2-3, 26, and 40. Park teaches this idea in par. 17. (i.e. averaging reads on an estimate, and he states averaging for twice the time)

Regarding claim 4. Park further teaches this limitation in par. 17. (i.e. traffic power measurer for averaging the traffic signal received for a duration)

Regarding claims 6 and 41-42. Park further teaches the limitations in this claim in par. 17. (measures a power level of interference for a given duration, then averages a power level of a traffic signal for another duration.)

Regarding claims 7 and 28. Tiedemann further teaches wherein at least some of the measurements of the propagation channel parameters are downlink measurements taken by the mobile terminal on pilot signals respectively transmitted by the fixed transceivers and formed with determined spreading codes. (see page 27 lines 10-15 where he mentions the mobile station measures the pilot strengths of each base station in the active set.)

Regarding claims 8, 29, and 43. Tiedemann further teaches the idea of relaying messages from the mobile station to the network controller using the fixed transceiver (i.e. base station). See page 27 line 32-page 28 line 4.

Regarding claims 11 and 30. Tiedemann further teaches wherein said processing of the report messages for the radio network controller comprises a determination of an active set of fixed transceivers relative to the mobile terminal and an activation of a radio link between the mobile terminal and each fixed transceiver of the active set on page 27 line 37-page 28 line 10. See where he explains that the controller can adjust the traffic channel power allocation of which base stations are transmitting to the mobile station for each of the base stations in the mobile's active set. The proceeds to explain that the controller sends a control message toe specific base stations in the mobiles active set indicating which base stations are to transmit on their channels. (i.e. create a radio link between the mobile and the specific base stations chosen)

Regarding claims 13-14 and 32-33. Tiedemann further teaches wherein the radio network controller determines an active set of fixed transceivers relative to the mobile terminal and activates a respective radio link between the mobile terminal and each fixed transceiver of the active set and wherein said processing of the report messages for the radio network controller comprises the determination of a command to adjust the transmission power of each fixed transceiver of the active set relative to the mobile terminal. See page 27 line 37-page 28 line 10. See where he explains that the controller can adjust the traffic channel power allocation of which base stations are transmitting to the mobile station for each of the base stations in the mobile's active set. Then he proceeds to explain that the controller sends a control message to specific base stations in the mobiles active set indicating which base stations are to transmit on their channels. (i.e. create a radio link between the mobile and the specific base stations chosen) On page 28 lines 4-10 see where he explains the controller sends a control message (i.e. command) to the base stations in the active set to allocate the forward traffic channel power. Park teaches measuring parameters such as data representing a time variability of a power level in the abstract and par. 15.

Regarding claim 45. Tiedemann further teaches the limitations of this claim on page 27 line 37-page 28 line 10. See where he explains that the controller can adjust the traffic channel power allocation of which base stations are transmitting to the mobile station for each of the base stations in the mobile's active set. The proceeds to explain that the controller sends a control message toe specific base stations in the mobiles

active set indicating which base stations are to transmit on their channels. (i.e. create a radio link between the mobile and the specific base stations chosen)

Regarding claim 46. Tiedemann further teaches the limitations of this claim on page 27 line 37-page 28 line 10. See where he explains that the controller can adjust the traffic channel power allocation of which base stations are transmitting to the mobile station for each of the base stations in the mobile's active set. The proceeds to explain that the controller sends a control message to specific base stations in the mobiles active set indicating which base stations are to transmit on their channels. (i.e. create a radio link between the mobile and the specific base stations chosen) On page 28 lines 4-10 see where he explains the controller sends a control message (i.e. command) to the base stations in the active set to allocate the forward traffic channel power.

7. Claims 5, 27, 12, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the grounds of rejection as applied to claims 1 and 25 above, and further in view of Davis et al. (US 6260062).

Regarding claims 5 and 27. Tiedemann and Park teach the limitations of the previous claims.

However, they do not teach wherein the report messages include a signal loss value on the channel.

Davis teaches an element management system for effective and efficient management of telecommunications networks. (title and abstract). He teaches the idea of sending messages that include a signal loss value in column 15 lines 26-32.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Davis with the teachings as in the combination of Tiedemann and Park. The motivation for doing so would have been to allow for providing sufficiently flexible support network management functions common to diverse NEs. (Davis column 5 lines 28-30)

Regarding claims 12 and 31. Tiedemann further teaches wherein the active set of fixed transceivers relative to the mobile terminal is set on page 27 line 37-page 28 line 10. See where he explains that the controller can adjust the traffic channel power allocation of which base stations are transmitting to the mobile station for each of the base stations in the mobile's active set. He proceeds to explain that the controller sends a control message to specific base stations in the mobiles active set indicating which base stations are to transmit on their channels. (i.e. create a radio link between the mobile and the specific base stations chosen) Park teaches the idea of messages having parameters such as variability data as explained in the rejections of claims 1 and 25. Davis further teaches the message parameters a signal loss value as explained in the rejection of claims 5 and 27 above. The combination therefore teaches messages including variability data and signal loss value, and setting the active set based on messages.

8. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the grounds of rejection as applied to claim 38 above, and further in view of Takeo (US 6385183).

Regarding claim 9. Tiedemann and Park teach the limitations of the previous claims.

However, they do not teach wherein at least some of the measurements of the propagation channel parameters are uplink measurements taken by the fixed transceivers on a pilot signal included in the signals transmitted by the mobile terminal over a dedicated channel.

Takeo teaches a CDMA power control system and method (see the abstract). He teaches the idea wherein measurements are uplink measurements taken by fixed transceivers (i.e. base stations) on pilot signals transmitted by the mobile terminal in column 11 lines 17-58.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the measurements on the uplink channel as in Takeo with the system and method for power allocation of Tiedemann and Park. The motivation for doing so would have been to provide a power control method for a CDMA system that could control powers of uplink radio signals and remove near-far problems.

Regarding claim 10. Tiedemann further teaches wherein the measurements are transmitted by the fixed transceivers to the radio network controller in report messages of an application protocol for controlling the fixed transceivers. See page 27 line 32-page 28 line 4.

9. Claims 16-17, 20, 24, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the grounds of rejection as applied to claims 1 and 25 above, and further in view of Akatsu et al. (US 6505255).

Regarding claims 16 and 35. Tiedemann and Park teach the limitations of the previous claims.

However, they do not teach determining a mode of transmitting the report messages.

Akatsu teaches the idea of determining a mode of transmission for messages in the abstract.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Akatsu with the system and method for power allocation of Tiedemann and Park. The motivation for doing so would have been to allow for sending data in different modes so that particular nodes can receive the data.

Regarding claim 17. Akatsu further teaches the modes being event triggered or periodic in column 13 lines 37-43, and column 27 lines 20-22.

Regarding claim 20. Akatsu teaches the idea of periodic transmission modes. However, he does not specifically state that the interval of the periodic transmissions can be selected. The examiner takes official notice that the idea of selecting the interval in periodic transmissions is an obvious feature in the art and would have been obvious to one of ordinary skill at the time of invention.

Regarding claim 22. Akatsu teaches the idea of event triggered transmission modes. However, he does not specifically state that the event of the event triggered transmissions can be selected. The examiner takes official notice that the idea of selecting the event in event triggered transmissions is an obvious feature in the art and would have been obvious to one of ordinary skill at the time of invention.

Regarding claim 24. Akatsu further teaches that determining the transmission mode takes into account a service which involves a communication between the mobile and a fixed transceiver. (abstract, and claim 2, i.e. transmission mode is determined based on the information being in real time or non-real time)

10. Claims 39 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over the grounds of rejection as applied to claim 38 above, and further in view of Sudo et al. (US 6625202).

Regarding claim 39. Tiedemann and Park teach the limitations of the previous claims. Tiedemann also teaches the limitation that the mobile has means for receiving over the radio interface, from the radio network controller, data designating an active set of fixed transceivers, see page 28 lines 4-10, where he explains the base station relays a message from the controller to the mobile indicating allocation of forward traffic channel power for the active set of base stations.

However, they do not teach the mobile having a diversity receiver having several reception fingers for processing signals respectively received according to several propagation paths each belonging to a determined propagation profile for a fixed

transceiver of the active set, and means of combining the signals processed by the reception fingers to determine a common information element carried by said signals.

Sudo teaches a mobile receiver for spread spectrum communication (see abstract and figure 1). Which reads on a mobile having a diversity receiver with several reception fingers (i.e. the several antennae in figure 1). He also explains the means for combining the signals to determine common information in the abstract.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the mobile receiver for spread spectrum as in Sudo with the system and method for power allocation of Tiedemann and Park. The motivation for doing so would have been to diversify the system with a mobile device that would avoid a reduction of circuit quality.

Regarding claim 53. Tiedemann teaches the limitations of this claim on page 27 lines 10-31 where he mentions the comparing of the direct and multi path signals for each base station, and that the pilot signals for these base stations are used to create the threshold value (i.e. pilot strengths, or reception energies, are used to create the threshold).

Allowable Subject Matter

11. Claims 15, 18-19, 21, 23, 34, and 36-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael T. Thier whose telephone number is (571) 272-2832. The examiner can normally be reached on Monday thru Friday 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael T Thier
Examiner
Art Unit 2617
11/26/2007

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